

What is claimed is:

1. A measurement device for an electrical apparatus, comprising:
a power cord that provides electrical energy to the electrical device;
a measurement circuit embedded within the power cord that measures a
5 parameter of the electrical energy supplied to the electrical device, and provides
an output signal indicative of the parameter of the electrical energy.
2. The measurement device according to claim 1, wherein the power cord
comprises a male plug end and a female receptacle end, and wherein the
10 measurement circuit is embedded within either the male plug end or the female
receptacle end.
3. The measurement device according to claim 1, wherein the power cord
has a male plug end and a female receptacle end and wherein the measurement
15 circuit is situated between the male plug end and the female receptacle end.
4. The measurement device according to claim 1, wherein the measurement
circuit measures at least one of current and voltage.
- 20 5. The measurement device according to claim 1, further comprising an
electrical connector for connecting the output of the measurement circuit to an
external circuit.
6. The measurement device according to claim 1, further comprising an
25 intelligence module receiving the output signal from the measurement circuit and
storing the output.

7. The measurement device according to claim 6, wherein the intelligence module comprises an interface that permits a computer to query the intelligence module for the stored output.
- 5 8. The measurement device according to claim 7, wherein the interface comprises a wired or wireless network interface.
9. The measurement device according to claim 6, wherein the intelligence module compares the output with a threshold and generates an alarm signal if
10 the output crosses the threshold.
10. The measurement device according to claim 1, further comprising a comparator that compares the output with a threshold and generates an alarm signal if the output crosses the threshold.
- 15 11. The measurement device according to claim 1, further comprising an interface that permits a computer to query the intelligence module for the stored output.
- 20 12. The measurement device according to claim 11, wherein the interface comprises a wired or wireless network interface.

13. A measurement device for an electrical apparatus, comprising:
a power cord that provides electrical energy to the electrical device, the power cord having a male plug end and a female receptacle end;
a current measurement circuit embedded within the power cord that
5 measures a parameter of the electrical energy supplied to the electrical device;
an output of the measurement circuit that provides a signal indicative of the parameter of the electrical energy; and
an electrical connector that connects the output of the measurement circuit to an external circuit.
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14. The measurement device according to claim 13, wherein the measurement circuit further measures voltage.
15. The measurement device according to claim 13, further comprising an
15 intelligence module receiving the output of the measurement circuit and storing the output.
16. The measurement device according to claim 15, wherein the intelligence module comprises a network interface that permits a computer to query the
20 intelligence module for the stored output via a network connection.
17. The measurement device according to claim 13, wherein the intelligence module compares the output with a threshold and generates an alarm signal if the output crosses the threshold.
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18. The measurement device according to claim 13, further comprising a comparator that compares the output with a threshold and generates an alarm signal if the output crosses the threshold.

19. The measurement device according to claim 13, further comprising an interface that permits a computer to query the intelligence module for the stored output.
- 5 20. The measurement device according to claim 19, wherein the interface comprises a wired or wireless network interface.

21. An intelligence module for a measurement device for an electrical apparatus, comprising:
- an input that receives a representation of an electrical parameter from at least one measurement circuit embedded within an electrical power cord;
 - 5 an analog to digital converter that converts the representation to a value associated with the electrical parameter;
 - a memory; and
 - a processor that stores the representation to the memory.
- 10 22. The intelligence module according to claim 21, further comprising an interface that permits a computer to query the intelligence module for the stored output.
23. The intelligence module according to claim 21, wherein the interface
- 15 comprises a network interface.
24. The intelligence module according to claim 21, wherein the processor further compares the output with a threshold and generates an alarm signal if the output crosses the threshold.
- 20 25. The measurement device according to claim 21, wherein the input comprises means for receiving input signals from a plurality of measurement circuits embedded within a plurality of electrical cords.
- 25 26. The measurement device according to claim 25, wherein the means for receiving input signals comprises a multiplexer.

27. A measurement device for an electrical apparatus, comprising:
a power cord for providing electrical energy to the electrical device;
measurement means embedded within the power cord for measuring a
parameter of the electrical energy supplied to the electrical device; and
5 means for providing an output signal indicative of the parameter of the
electrical energy.

28. The measurement device according to claim 27, wherein the power cord
comprises a male plug end and a female socket end, and wherein the
10 measurement means is embedded within one of the plug end and the female
socket end.

29. The measurement device according to claim 27, wherein the power cord
has a male plug end and a female receptacle end and wherein the measurement
15 circuit is situated between the male plug end and the female receptacle end.

30. The measurement device according to claim 27, wherein the
measurement circuit measures at least one of current and voltage.

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31. An intelligence module for a measurement device for an electrical apparatus, comprising:

means for receiving an input representing an electrical parameter from at least one measurement circuit embedded within an electrical power cord;

5 means for converting the representation to a digital value associated with the electrical parameter; and

means for storing the representation to the memory.

32. The intelligence module according to claim 31, further comprising an interface means for permitting a computer to query the intelligence module for the stored output.

33. The intelligence module according to claim 31, further comprising means for comparing the output with a threshold and generating an alarm signal if the output crosses the threshold.

34. The measurement device according to claim 31, wherein the means for receiving the input comprises means for receiving input signals from a plurality of measurement circuits embedded within a plurality of electrical cords.

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35. A method of measuring an electrical parameter, comprising:
at a measurement circuit embedded within a power cord that provides electrical energy to an electrical device, measuring a parameter of the electrical energy supplied to the electrical device; and
5 providing an output signal indicative of the parameter of the electrical energy.
36. The method according to claim 35, wherein the power cord comprises a male plug end and a female receptacle end, and wherein the measurement
10 circuit is embedded within one of the plug end and the receptacle end.
37. The method according to claim 35, wherein the power cord has a male plug end and a female receptacle end and wherein the measurement circuit is situated between the male plug end and the female receptacle end.
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38. The method according to claim 35, wherein the measurement circuit measures at least one of current and voltage.
39. The method according to claim 35, further comprising sending the output
20 signal to an intelligence module and storing the output signal at the intelligence module.
40. The method according to claim 39, querying the intelligence module to retrieve the stored output.
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41. The method according to claim 40, further comprising comparing the stored output with a threshold and generating an alarm signal if the output crosses the threshold.

42. The method according to claim 35, further comprising comparing the output with a threshold and generating an alarm signal if the output crosses the threshold.

43. A method for measuring an electrical parameter, comprising:
at an intelligence module, receiving an input representing an electrical parameter from at least one measurement circuit embedded within an electrical power cord;

5 converting the representation to a digital value associated with the electrical parameter; and
storing the representation to a memory.

44. The method according to claim 43, further comprising querying the
10 intelligence module for the stored output

45. The method according to claim 43, further comprising comparing the output with a threshold and generating an alarm signal if the output crosses the threshold.

15 46. The method according to claim 43, further comprising receiving input signals from a plurality of measurement circuits embedded within a plurality of electrical cords.

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47. A method for measuring an electrical parameter, comprising:
at an intelligence module, receiving an input representing an electrical
parameter from at least one measurement circuit;
storing the representation to a memory;
5 receiving a query from a computer for the stored representation; and
transmitting a response to the query from the intelligence module to the
computer.
48. The method according to claim 47, wherein the computer addresses the
10 query to the intelligence module using a network address.
49. The method according to claim 47, further comprising comparing the
stored representation with a threshold and generating an alarm signal if the
output crosses the threshold.
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50. The method according to claim 49, further comprising sending the alarm to
the computer.
51. The method according to claim 47, wherein the receiving comprises
20 receiving the input signal from a measurement circuit embedded within an
electrical cord.
52. The method according to claim 47, wherein the receiving comprises
receiving input signals from a plurality of measurement circuits embedded within
25 a plurality of electrical cords.